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ABSTRACT

A business-education venture to provide high technology skills training for health care occupations was evaluated. The project developed and implemented a partnership of health care employers and education agencies to develop a joint venture for training health care workers in the District of Columbia. Three comparative analyses were conducted: (1) comparisons using data pooled from the four project sites regarding participant characteristics and outcomes; (2) comparisons of expected and actual outcomes of each site; and (3) comparisons of participant characteristics and expected and actual outcomes between sites. Analyses indicated that the project was successful in leveraging a wide variety of external resources (nonfederal) estimated at $180,000. All funded programs were identified in a needs assessment survey as high demand health care occupational areas requiring technical skill training and retraining. Training was provided to 196 participants enrolled in existing programs, specialized training programs initiated by the project, and remedial instruction. The majority of participants were female, black, unemployed, and vocationally oriented. Slightly more than one-third were referred by employers; 100 percent were employed by a partner organization. Data indicated differences in participants' registration, participation, completion, job placement rates, and demographic characteristics across sites. (YLB)

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U.S. DEPARTMENT OF EDUCATION
COOPERATIVE DEMONSTRATION PROGRAM

FINAL EVALUATION REPORT

A BUSINESS-EDUCATION VENTURE TO PROVIDE HIGH TECHNOLOGY SKILLS TRAINING FOR HEALTH CARE OCCUPATIONS

PREPARED BY

R.G. WASDYKE & ASSOCIATES
SEPTEMBER, 1991

U.S. DEPARTMENT OF EDUCATION
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A BUSINESS EDUCATION-VENTURE TO PROVIDE

HIGH TECHNOLOGY SKILLS TRAINING FOR HEALTH-CARE OCCUPATIONS

FINAL EVALUATION REPORT

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1.0 INTRODUCTION

Nationally, creative approaches to expand the labor pool for many disciplines known collectively as ""allied health"" as well as nurses are needed to avert possible personnel shortages and curtailment of some health-care services. The situation is compounded by the availability of well trained secretarial, maintenance, food service sanitation and housekeeping staff that make up the infrastructure of health-care providers.

Since July, 1989, under a Cooperative Demonstration grant from the U.S. Department of Education, Partners for American Vocational Education (PAVE), a non-for-profit foundation has operated a Business-Education Venture to provide high technology skills training for health-care occupations. The grant included the development and implementation of a partnership of health-care employers and education agencies to develop a joint venture for training health-care workers in the District of Columbia. The Greater Washington area has been characterized by a tight labor market and the need for employers to focus recruitment and outreach policies and programs on attracting traditionally underrepresented groups. These groups include minorities who within the District make up the majority as well as women. In the main, the District's training and education programs have not focused on the specific employment needs of health-care employers.

Strategically, the grant was designed to leverage the use of available public education and private employer resources to provide value-added high technology training in the health-care industry.

1.1 GOALS

The Business-Education Venture has two primary goals:

I. To develop and implement an effective Business-Education Venture that would maximize the resources of education institutions and health-care providers in the District.

II. To field test a health-care high technology Business-Education Venture that would enroll 150 persons in health occupations training programs.

1.2 Objectives

A. Establish advisory steering groups of business, education and community leaders

B. Form a coalition of health-care employers

C. Orient and work with educational institutions in the area of high technology training needs for the health-care industry

D. Develop a plan to coordinate the delivery of education services to health-care employers

E. Conduct outreach and recruit learners

F. Assess participants and provide remediation as required

G. Enroll participants in health-care technology skills training programs

H. Coordinate the placement of participants completing training into jobs and/or further training in the related health-care fields.

I. Conduct and independent evaluation of the project

J. Prepare and disseminate a guide on the development of a business-education venture

1.3 THIRD PARTY MANAGEMENT

A distinguishing feature of the business-education venture was third-party management. PAVE, the grant recipient, managed all aspects of the project but did not directly deliver training services. This is in sharp departure to the

majority of training and educational institutions in which the management of joint business-education projects resides in the institution that delivers the training. This point is noted since it bears directly on the ability of the project to meet its major strategic goal, the ability to leverage resources in private as well as the public sectors to meet training needs.

1.4 EXPECTED OUTCOMES

Exhibits 1.1 and 1.2 summarize the expected outcomes for the project. Exhibit 1.1 includes outcomes projected with respect to the establishment and functioning of the various community groups that identified major areas of training needs, provided training, as well as other resources and policy guidance and advice to PAVE.

Exhibit 1.2 summarizes expected project outcomes in regard to the numbers of participants enrolled in training. In the evaluation of the project, outcomes have been examined for the total group of project participants and for the participants at each site. The relationship between outcomes related to training and characteristics of the total group and for the participants at each site have also been examined. This analysis was conducted to examine the relative effectiveness of the project across and within the sites.

Exhibit 1.1
Projected Business-Education Venture Outcomes

Measure	Projected Outcomes
Formed Steering Committee	Functioned as Advisory Board
Formed Health Care Coalition	Leveraged Training Resources
Identified Training Needs	Conducted Needs Survey
Provided Training	Matched Training Needs

Exhibit 1.2
Projected Participant Outcomes

Measure	Projected Outcomes	
# Enrolled Training	100	Employees of Coalition Members
# Enrolled Training	25	Unemployed Adults
# Enrolled Training	25	Recent High School Graduates
Total	150	

2.0 EVALUATION APPROACH

R.G. Wasdyke & Associates prepared a detailed evaluation plan for PAVE that guided the independent evaluator's role and scope of work during the project. A description of the general methods and data sources used in the evaluation and the methods used to answer each of the evaluation questions are summarized below.

2.1 General Methods and Data Sources

Participant characteristics and the primary outcome measures used in this evaluation were entered in PAVE's management information system. The MIS data base developed under this grant provided timely and relevant data for making management decisions as well as the basis for subsequent data analyses for evaluation purposes. In particular, this data base were used in analyses of characteristics of participants, variations in patterns of characteristics across the four project sites, and the relationship between participant characteristics and various project outcomes.

Data from all four sites through September 15, 1991 have been examined for all outcomes measures.

Three types of comparative analyses have been conducted. First, comparisons were made using data pooled from the four project sites regarding participant characteristics and outcomes. These data provide a complete picture of the project population and outcomes. Secondly, comparisons were made of the expected and actual outcomes of each of the project sites. Lastly, participant characteristics and expected and actual outcomes were compared and analyzed between each of the sites. Caution is necessary in the comparisons between sites because of the relatively small numbers of participants involved at each of these sites.

Exhibit 2.1 summarizes the major evaluation questions used in the project. The remaining sections of this report are organized by evaluation questions.

Exhibit 2.1
Evaluation Questions

Questions Addressed: The questions addressed by the project evaluation included the following:

---

1. To what extent did the Steering Committee and Health Care Coalition leverage existing allied health training resources within the District of Columbia?

2. To what extent was the training provided consistent with current and anticipated employment needs in the District?

3. What were the characteristics of Steering Committee and Health Care Coalition members, i.e. affiliations, level of responsibility?

4. What were the characteristics of training and counselling received, i.e. number of hours of instruction, type of instruction and counselling?

5. What were the characteristics of project participants, i.e. demographics, educational attainment, educational or vocational goal?

6. What were the relationships between project participant characteristics and project outcomes?

7. Did participant characteristics vary across project sites?

8. What were the relationships between projected and actual outcomes?

3.0 QUESTION 1: TO WHAT EXTENT DID THE STEERING COMMITTEE AND HEALTH-CARE COALITION LEVERAGE EXISTING ALLIED HEALTH TRAINING RESOURCES WITHIN THE DISTRICT OF COLUMBIA?

Eight coalition member institutions and organizations generated $180,750 in in-kind contributions for the Business-Education Venture project. As shown in Exhibit 3.1, project management leveraged approximately 32% of the total project cost of $569,541. Resources generated by the project ranged between $45,300 to $3,750 from Howard University and the District of Columbia's Private Industry Council respectively.

Exhibit 3.1
Relationship Between Federal, Non-Federal Cash and Non-Federal In-Kind Contributions

Source $		Amount $	% $
Federal		$383,349	67%
Non-Federal Cash		5,442	<1%
Non-Federal In Kind			
Children's Hospital	30,500		
DC Private Industry Council	3,750		
Howard University Hospital	45,300		
J.B. Johnson Nursing Home	14,100		
MM Washington High School	39,000		
Washington Board of Trade	4,200		
Washington Hospital Center	27,400		
Subtotal	$180,750	180,750	32%
Grand Total		$569,541	

The various types of resources provided by the above institutions and organizations rank ordered by total dollar value are as follows:

1. Computer Hardware
2. Training Courses
3. Personnel-Assessment
4. Space
5. Equipment

4.0 QUESTION 2: TO WHAT EXTENT WAS THE TRAINING PROVIDED CONSISTENT WITH CURRENT AND ANTICIPATED EMPLOYMENT NEEDS IN THE DISTRICT?

4.1 ROLE OF HEALTH-CARE COALITION IN IDENTIFYING EMPLOYMENT NEEDS

The health-care coalition held its first meeting in May, 1990 at the headquarters of the DC Hospital Association. The coalition was made up of senior staff from 15 health service providers. Human resources development representatives from the following types of organizations comprised the coalition: hospitals, nursing homes, health maintenance, neighborhood health centers, home health-care and health-care management companies.

One of the major roles of the coalition was to assist PAVE staff in the design and development of a needs assessment protocol for identifying the major human resource development issues and training needs in the District. Subsequent to the completion of the survey, the coalition also assisted PAVE in prioritizing employer training needs, identifying potential health-care employers to participate in training programs and identifying employment opportunities. The coalition met regularly during the course of the project and was to become a significant communications channel with health-care employers.

4.2 NEEDS ASSESSMENT SURVEY

In the Summer, 1990, project staff conducted a mail survey of 75 health-care providers in the District that produced a 19% response rate. Indepth follow-up interviews were conducted with the 14 respondents. Results of needs assessment were summarized by project staff and are found in Appendix A. In summary, the needs assessment identified:

A. Major issues of general concern with respect to trends and critical factors effecting health-care within the District and nationally.

B. Specific employment and technical skill needs in the health-care industry.

C. Forty-seven high demand occupational areas requiring technical training and retraining.

D. Training strategies and benefits to encourage participation in training.

4.3 RELATIONSHIP BETWEEN SURVEY RESULTS AND TRAINING PROVIDED.

Project funds were used to provide training in the following: Nurse Occupations Technology, Medical Transcription Technology and Phlebotomy. Project staff were also instrumental in causing to bring about the development of a Medical Records Apprenticeship program with Kaiser Permanente, a coalition member, and a Medical Unit Clerk program at the MM Washington Health Career High School.

All of the programs funded under this grant were identified in the survey as high demand health-care occupational areas requiring technical skill training and retraining.

5.0 QUESTION 3: WHAT WERE THE CHARACTERISTICS OF STEERING COMMITTEE AND HEALTH-CARE COALITION MEMBERS?

The following three groups provided guidance to PAVE in the conduct of the project: Steering Task Force; Health-Care Industry Coalition; and Health-Care Occupations Joint Venture Education Partners.

5.1 STEERING TASK FORCE

The Steering Task Force acted as an advisory and advocate group and provided guidance to project management. The Task Force was comprised of senior executives from the health-care industry, educational community as well as economic development and governmental agencies. The objective was to provide PAVE with a broad base of views with respect to economic development and training.

Exhibit 5.1
Characteristics of Steering Task Force

Organization	President	Vice President	Director
Metro Health Corp	x		
DC Dept. Emply.			x
DC Vo-Ed.			x
DC Health Care Assn.			x
UDC		x	
DC Office Econ. Dev.			x
Gtr. Washington Brd. of Trade	x		
Howard University		x	
DCPS Adult Ed.			x
DCPS Secondary Ed.			x
DC Hosp. Assn.	x		
Howard Unv. Hosp.	x		
Geo. Wash. Unv.		x	
Totals	4	3	6

As shown above the Steering Task Force represents a variety of public and private organizations all of which have a

"stake" in the economic develop of the District and provisions of high quality health-care through training and retraining District residents.

5.2 EMPLOYER COALITION

The Employer Health-Care Coalition was comprised of 15 health-care employers in the District. Representatives from these employers were typically drawn from human resource development departments. In addition to assisting project staff in the conduct of the earlier discussed needs assessment, coalition members worked within their own organization's by expanding employee assistance programs and thereby increasing the probability of employee participation in project funded training. Further, coalition members played a major role in marketing the project through the distribution of promotional literature.

5.3 EDUCATION PARTNERS

Education partners provided access to public training programs offered within the District and included the following: American University, Catholic University, the District of Columbia Public Schools, Gallaudet University, George Washington University, Georgetown University, Howard University and the University of the District of Columbia. Representatives from these institutions also attended coalition meetings.

6.0 QUESTION 4: WHAT WERE THE CHARACTERISTICS OF THE TRAINING AND COUNSELLING RECEIVED?

The Business-Education Venture provided training to 196 participants. Twenty-seven participants were enrolled in existing health-care programs, 154 in specialized training programs initiated by project staff and 15 persons received remediation instruction.

6.1 TYPE OF TRAINING RECEIVED

The training programs shown in Exhibit 6.1 were conducted at the MM Washington Health Career High School, Washington Hospital Center, Greater Southeast Community Hospital, J.B. Johnson Nursing Home, University of the District of Columbia and District's Adult Education Centers.

Exhibit 6.1
Characteristics of Training and Counselling Received

Characteristics	Number	%
Training/Instruction		
Nurse Occupations Technology	54	28%
Phlebotomy	32	16%
Medical Transcription	68	35%
UDC Health Care College Credit	27	13%
Basic Skills Remediation	15	8%
Total	196	
Counselling		
Career	122	62%
None	74	38%
Total	196	

Three Medical Transcription courses were conducted at the MM Washington Health Career High School. A partial explanation for the high demand for this course is that many hospitals in the District, including Howard University Hospital, have their medical documents transcribed in Atlanta, Georgia as the result of the severe shortage of transcriptionists in the District.

The Nurse Occupations Technologies program was initiated as the result of new federal regulations with respect to certification of nurse assistants. The regulations required 75 hours of laboratory work and on-the-job training. Through the efforts of project and MM Washington staff MM Washington received certification to conduct this type of training. Two courses were conducted at MM Washington. MM Washington also plans to offer this course to District nursing home employees.

The Washington Hospital Center conducted two courses for Phlebotomy technicians. Based on a recommendation from the coalition a short term training program was developed and implemented at the Center. As the result of this initiative about 90% (29 grant participants) have been employed at the Center. As above the Center plans to continue to offer phlebotomy training to District Residents.

In addition to the above efforts, project staff assisted Kaiser Permanente in establishing a medical records apprenticeship program. The program was certified by the D.C. Apprenticeship Council. Project staff also worked with Children's Hospital in developing a Medical Unit Clerk training program that is affiliated with the MM Washington Health Career High School. Hospital employees will be trained at MM Washington and complete their clinical work at Children's. Enrollment figures were not included in Exhibit 6.1 for these two programs because federal funds were not expended in developing these initiatives. The need for these programs were the direct result of recommendations from the employer coalition.

6.2 EMPLOYMENT STATUS DURING TRAINING

As reported in Exhibit 6.2 the majority of the participants enrolled in training (34%) were employed full-time. Twenty-four percent (24%) were unemployed and 11% were employed part-time. The employment status of about one-third of the participants is unknown.

Because 45% of the participants were employed either full- or

part-time the training courses offered by the project were typically held in the early evening hours and met two to three times per week. Courses ran twelve to fourteen weeks in length and provided between 72 and 129 hours of instruction.

Exhibit 6.2
Participants Employment Status During Training

Characteristics	Number	%
Full-time	86	34%
Part-time	27	11%
Unemployed	60	24%
Unknown	82	31%
Total	255	

6.3 HOURS OF INSTRUCTION

Forty percent of the participants enrolled in training received between one and 100 hours of instruction and 45% received between 101 and 250 hours of instruction. Twenty-nine (15%) participants received a total of about 1,000 hours of instruction.

Exhibit 6.3
Total Number of Hours of Instruction

Hours of Instruction	Number	%
1-100	78	40%
101-250	89	45%
251-500		
501-750		
751-1000		
>1000	27	14%
Unknown	2	<1%
Total	196	

Examination of Exhibit 6.4 indicates that University of the District of Columbia courses met for 240 sessions for a total number of 1,080 hours of instruction. Sessions lasted about four and a half hours each. Twenty-seven persons enrolled in UDC courses and as of September, 1990 none of the participants had completed. Participants were enrolled in a variety of health-care courses all of which led to employment in "allied health" occupations.

Five participants, about 2.5% of the 196 participants enrolled in training received remediation. Remediation was offered at MM Washington Career Health High School, Children's Hospital Center and Greater Southeast Community Hospital Center. Remediation was provided through BASE (Basic Academic Skills for Employment) software at each of these locations.

Exhibit 6.4
Average Number of Hours of Training per Session

Type	#Hrs	#Sessions	Mean #Hrs
Phlebotomy	140	47	3.0
Med. Trans.	120	18	6.7
Nurse Tech.	140	22	6.4
Remediation	5	5	1.0
UDC College Credit	240	1080	4.5

7.0 QUESTION 5: WHAT WERE THE CHARACTERISTICS OF PROJECT PARTICIPANTS?

As indicated in Exhibit 7.1, the great majority of participants (76%) at intake were female and more than three-quarters (90%) were members of minority groups with blacks (85%) having the highest representation of all groups at intake. Only 4% of the group at intake were Hispanics. Forty-percent of the group at intake were between 23 and 39 years of age and about 10% of the group were greater than 40 years of age. The "typical" person at intake was a black female between the 30 and 39 age bracket.

Exhibit 7.1
Participant Characteristics at Intake: Sex, Age, Race

Characteristics		Number	%
SEX			
	Male	62	24%
	Female	193	76%
	Unknown		
	Total	255	
AGE	<18	9	4%
	18-22	17	7%
	23-29	41	16%
	30-39	58	23%
	40+	26	10%
	Unknown	104	40%
	Total	255	
RACE	White, not of Hispanic Origin	18	6%
	Black, not of Hispanic Origin	216	85%
	Hispanic	9	4%
	Asian or Pacific Islander	3	1%
	American Indian or Alaskan Native		
	Unknown	9	4%
	Total	255	

7.1 SPECIAL POPULATION MEMBERS AND ENGLISH PROFICIENCY LEVEL

Almost half of the group (46%) at intake, as compared to those participants enrolled in training (24%), were unemployed. The project reported 48% of the intake group being members of special populations; 46% unemployed and 2% immigrants. However, it is important to note that of the 255 going through intake that 132 persons (52%) were classified under special populations as "unknown". Also, ninety-three percent of the intake group was reported English proficient.

Exhibit 7.2
Participant Characteristics
at Intake: Special Population Members and English Proficiency

Characteristics	Number	%
Special Populations		
Students w/Disabilities		
Immigrant	6	2%
Low-Income		
Academically Disadvantaged		
Unemployed	117	46%
No Special Circumstances		
Unknown	132	52%
Total	255	
English Proficiency		
English Proficient	238	93%
Limited English Proficient	17	7%
Total	255	

7.2 EDUCATIONAL ATTAINMENT

Slightly more than have of the intake group (53%) reported having graduated from high school or receiving a GED. Only 14 persons representing 5% of the total group had less than a high school education or equivalency diploma. Twenty percent of the group had attained some college and 21% had graduated from college.

Exhibit 7.3
Participant Characteristics
at Intake: Educational Attainment

Characteristics	Number	%
Some High School	14	5%
High School Graduate/GED	134	53%
Some College	51	20%
College Graduate	53	21%
Unknown	3	1%
Total	255	

Analysis of this and earlier data explains while 93% of the group at intake were reported as English proficient and none were reported as academically disadvantaged.

7.3 EDUCATIONAL/VOCATIONAL GOAL

As indicated in Exhibit 7.4 only 14 persons reported attaining a high school diploma or GED as an educational goal. Clearly, this group was vocationally oriented with over three-quarters reporting job placement, job promotion or vocational certification as their primary goal. Forty-four percent indicated that job promotion was their primary goal for participation in the project.

Exhibit 7.4
Participant Characteristics
at Intake: Primary Educational/Vocational Goal

Characteristics	Number	%
Job Placement	48	19%
Job Promotion	113	44%
Vocational Certification	41	16%
High School Diploma/GED	14	6%
College Credit/CEU's		
Associate Degree		
Unknown	39	15%
Total	255	

8.0 QUESTION 6: WHAT WERE THE RELATIONSHIPS BETWEEN PROJECT PARTICIPANT CHARACTERISTICS AND PROJECT OUTCOMES?

Exhibit 8.1 includes characteristics of the 196 participants who were enrolled in training. These data indicate that slightly more than a third (36%) of the participants were referred to the training by their employers. As the result of the project 35% of the group were either hired (29%) or promoted (6%) and 14% continued with education. The data also indicate that the status of 15% of the group was reported as unknown.

Exhibit 8.1
Characteristics of Those Who Were Trained

Characteristics	Number	%
Referred by Employers	71	36%
Hired	56	29%
Promoted	12	6%
Continued w/Education	27	14%
Unknown	30	15%
Total	196	

8.1 EMPLOYMENT

Exhibit 8.2 indicates that 100% of the participants enrolled in the project were employed by a partner (coalition) organization.

Exhibit 8.2
Number Employed by Type of Organization

Type of Organization	Number	%
Partner Organization	113	100%
Non-Partner		
Grantee Institution		
Unknown		
Total	113	

8.2 TRAINING STATUS AT END OF GRANT PERIOD

The data reported in Exhibit 8.3 shows the status of the 196 participants enrolled in training at the end of the grant period. Almost half (44%) of the participants successfully completed the training and 13% were completing their training as of September, 1991. However, 83 participants accounting for 43% of the total group enrolled either dropped out of training (13%) or their status was reported as unknown (30%).

Exhibit 8.3
Training Status at End of Grant Period

Status	Number	%
Currently Enrolled as of 09/91	27	13%
Successfully Completed	86	44%
Failed		
Dropped Out	26	13%
Unknown	57	30%
Total	196	

9.0 QUESTION 7: DID PARTICIPANT CHARACTERISTICS AND OUTCOMES VARY ACROSS PROJECT SITES?

Examination of the data in Exhibit 9.1 indicates differences in participants registration, participation, completion and job placement rates. Nursing Technology had the greatest participation rate (93%), Phlebotomy the second highest at 72% and Medical Transcription the lowest at 35%. the completion rates across all the training program was relatively stable with 78% of the participants completing both Medical Transcription and Phlebotomy training and Nursing Technology reporting 70% completion.

Exhibit 9.1
Project Outcome by Type of Training Received

	Phleb.	Trans.	Nurse Tech.	Remed.	UCD.
Registered	32	68	54	15	27
Participated	23	24	50	15	27
Completed	18	18	35	15	
Non-Completed	5	6	15		
# Hrs. Train.	140	120	140	5	1080
# Sessions	47	18	22	5	240
# Placed Jobs	18	13	25		

9.1 JOB PLACEMENT

Differences in job placement rates were also evident among the various training programs. Phlebotomy placed 78% of its completers. Examination of Exhibit 6.1 reveals that while Phlebotomy training had the greatest number of training sessions its average session length was less than half of either Medical Transcription or Nursing Technology. The average training session for Phlebotomy was 3.0 hours and the mean number of hours for Medical Transcription and Nursing Technology 6.7 and 6.4 hours respectively.

9.2 DEMOGRAPHIC CHARACTERISTICS

Participant demographic characteristics also varied among the

four training sites. The Nurse Technology program at the MM Washington Career Health High School reported the highest percentage of females (93%) with 79% female enrollment in their Medical Transcription program. The Phlebotomy program at Washington Hospital Center reported a 78% female enrollment. The remediation program in the District's adult schools served a predominantly female population was well the University of the District of Columbia.

Although the population served varied among the four sites, as reported in Exhibit 6.1 the majority served were black females (76%). Only nine (5%) of the 196 participants involved in the project were either Hispanic or Asians.

Further, while differences in outcomes as reported in Exhibit 9.1 occurred among the sites, because of the preponderance of black females served in the project it appears that membership in a minority group had inconclusive bearing on the attainment of outcomes.

Exhibit 9.2
Participant Demographic Characteristics
at Intake by Training Site

Site		Characteristics			
Washington Hospital Center		Phlebotomy			
		Male	%	Female	%
	White	1	3%	5	16%
	Black	6	19%	19	60%
	Hispanic			1	3%
	Totals	7	22%	25	78%
MM Washington Career Career High School		Nurse Occupations			
		Male	%	Female	%
	White				
	Black	4	7%	46	85%
	Hispanic			2	4%
	Asian			2	4%
	Totals	4	7%	50	93%
		Medical Transcription			
		Male	%	Female	%
	Black	14	21%	52	77%
	Hispanic			2	3%
	Totals	14	21%	54	79%
DC Adult Schools		Remediation			
		Male	%	Female	%
	White	1	7%		
	Black	4	27%	8	53%
	Hispanic	1	7%		
	Asian			1	7%
	Totals	6	40%	9	60%
University of District of Columbia		Health Care Programs			
		Male	%	Female	%
	Black	9	33%	17	63%
	Asian			1	4%
	Totals	9	33%	18	67%

10.0 QUESTION 8: WHAT IS THE RELATIONSHIP BETWEEN PROJECTED AND ACTUAL OUTCOMES?

Analysis of Exhibit 9.1 indicates that participants characteristics as well as outcomes varied across sites.

Exhibit 10.1 summarizes the status of the 196 persons who participated in the project. Almost three-quarters (71%) of those persons involved in the intake process and registered participated in the project (N=139). Sixty two percent of those participating in training completed their course of study and of this number (86 completers) fifty-six were placed in jobs.

Exhibit 10.1
Project Outcome Summary

Characteristics	Number	%
Registered	196	100%
Participated	139	71%
Completed	86	62%
Non-Completed	26	18%
# Hrs. Train.	1,485	
# Sessions	332	
# Placed Jobs	56	65%

The grant proposal anticipated that a total of 150 persons would be enrolled in training using federal funds. As shown below 196 persons were served. When broken out by type of person served, employees of coalition member, unemployed adult and recent high school graduate, the project did not meet its objective of providing training to 25 recent high school graduates.

Exhibit 10.2
Comparison of Projected and Actual Outcomes

Measure: Enrolled in Training	Projected	Actual	Var.
Employees of Coalition Members	100	113	+13
Unemployed Adults	25	60	+35
Recent High School Graduates	25	23	(2)
Total	150	196	

11.0 CONCLUSIONS AND RECOMMENDATIONS

During the 18 month grant period project staff with guidance and assistance of a Steering Task Force, Employer Coalition and education partners successfully enrolled 196 persons in high technology skills training for health-care occupations in four sites in the District of Columbia. The project was managed using the "third-party management" concept. That is to say, the delivery of training intervention was carried out by other than project staff. Project staff organized, facilitated and directed, with the exception of outreach, recruitment and remediation interventions, the delivery of services under the grant. In order to address the specific employment and training needs identified by the coalition specialized training programs were developed and implemented for Phlebotomy, Medical Transcriptionists and Nursing Technology.

Moreover, the project was successful in leveraging a wide variety of resources (computers, training courses, space, equipment and personnel) estimated at about $180,000 from health-care providers, the DC Private Industry Council and the DC Public Schools. These resources supplemented federal funds in carrying out the project.

Results of the evaluation of the Business-Education Venture project demonstrate that a model that uses the resources of education institutions and health-care providers in the District of Columbia can be successful in providing training and other services for employed as well as unemployed youth and adults. This conclusion is based on the evidence that performance objectives for the Business-Education Venture project related to enrollment in health-care training as well as the formation and implementation of a business-education partnership have been met or exceeded.

Evaluation results also indicate that the Business-Education Venture project's fundamental premise with respect to the leveraging external resources (non-federal) to accomplish its broader goal of community support for health-care training was successful. The commitment of senior hospital among

other private health-care providers staff to serving on the Steering Task Force and Employer Coalition is further evidence of usefulness of business-education ventures in dealing with training related issues.

Because of the collaborative nature of the Joint Venture the relationships between health-care providers and education institutions and project staff as "third-party" managers were of particular importance. Participant outcomes attained as reported earlier point to the potential significance of this management strategy for managing future joint ventures. The future issue is whether the health-care venture will continue in the absence of the strong role project staff played in facilitating the "bring together" and reconciling the differences between health-care providers and education institutions.

Evaluation evidence further indicates that on average 78% of training completers were placed in the health-care occupation for which they were trained.

Based on the evaluation findings the following changes are recommended for future health-care joint venture projects:

Representation of Non-Traditional Groups. Evaluation results indicate that the great majority of participants were black females (76%) with very few Hispanic and Asian enrollees. Because of the popular stereotype of female health-care providers, especially in nursing field, special efforts and incentives should be developed to recruit males and members of other minority groups into the health-care field.

Level of Participants Education. The level of education for participants on average was high school or beyond. While a variety of factors undoubtedly led to this finding -- for example, a tight labor market tends to "push up" the education level of the unemployed labor market -- because of the high employment demand for entry-level health-care providers increased emphasis should be placed on recruiting training candidates from the pool of the less educationally qualified.

Steering Task Force and Employer Coalition. As cited earlier a significant issue is continuation of these groups without the guidance of a third-party. Future joint venture projects should make provisions to the extent possible for assurance that the joint venture will continue in the absence of federal funds.

Appendix A
High Technology Skills Training for Health-Care Occupations: Priorities for the District of Columbia

HIGH TECHNOLOGY SKILLS TRAINING FOR HEALTH CARE OCCUPATIONS

PRIORITIES FOR THE DISTRICT OF COLUMBIA

MEDICAL SERVICES

DOT CODE	TITLE
719 261 010	Biomedical Equipment Technician
245 362 010	Medical Record Clerk
079 367 014	Medical Record Technician
	--Medical Record Administrator
078 381 014	Medical Laboratory Technician
078 361 014	Medical Technologist
078 261 014	Medical Technologist, Bacteriology
	(Allergenic Technologist)
078 361 010	Medical Technologist, Chemistry
203 582 058	Medical Transcriber
075 374 010	Nurse, Registered
079 374 014	Nurse, Licensed Practical
355 674 026	Geriatric Nurse Assistant
355 674 014	Nurse, Assistant
076 121 010	Occupational Therapist
076 364 010	Occupational Therapy Assistant
712 661 010	Orthopedic Assistant
076 121 014	Physical Therapist
076 224 010	Physical Therapist Assistant
078 361 026	Radiologic Technologist
	--Magnetic Resonance Imager
	--Computer Assisted Tomographer
078 361 034	Radiation Therapy Technologist
076 124 014	Recreational Therapist
NOT AVAILABLE	Recreational Therapist Assistant
079 361 010	Respiratory Therapist
NOT AVAILABLE	Respiratory Therapy Technician
078 364 010	Ultrasound Technologist

HIGH TECHNOLOGY SKILLS TRAINING FOR HEALTH CARE OCCUPATIONS

PRIORITIES FOR THE DISTRICT OF COLUMBIA

(continued)

SUPPORT SERVICES

DOT CODE	TITLE
321 137 010	Housekeeper (Environmental Technician)
638 281 014	Maintenance Mechanics
899 381 010	Maintenance Repairer, Building
637 261 014	Environmental Control System Installer-Servicer
355 677 010	Food-Service Worker, Hospital

RELATED TRAINING

-- Basic Education Skills
-- Computer Literacy
-- Human Relations/Interpersonal Skills
-- Management/Team Building

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